

15 INCH DYNAMITE GUN MONSTER

Coming to New York.

BIGGEST IN THE WORLD



(Copyright, 1898, W. R. Hearst.)

WITHIN a few months there will be mounted on Fisher's Island, at the north entrance of Long Island Sound, the most destructive dynamite gun ever constructed since warfare began.

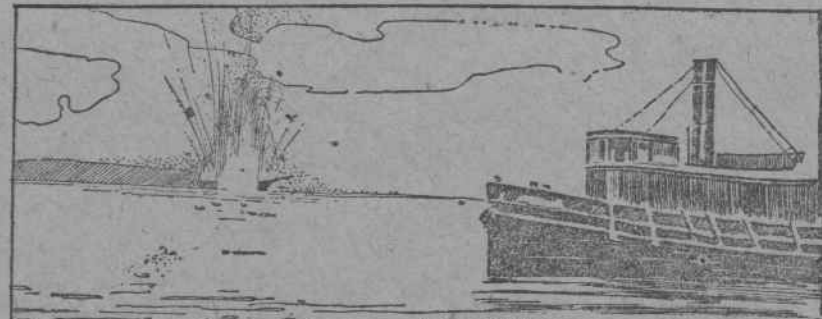
This weapon of war is the outgrowth of years of experiments and embodies all that is effective in coast defense. It will be a powerful guardian of New York Harbor. No gun like it has ever been mounted on the Atlantic seaboard. By the middle of next spring it will be ready to throw nitro-gelatin 4,000 yards out to sea. Summing this weapon up in a few words, it is fifty feet in length, throws a five-hundred pound charge of high explosive, is fifteen inches in diameter and with a one-hundred-pound charge can wreck and sink with one shot the finest battle ship afloat in any navy in the world. It has a firing capacity of eight aimed shots every ten minutes and will withstand the shock of 4,000 rounds. Its danger zone, or destructive radius, covers three hundred feet on all sides of a common center, or six hundred feet in diameter. It is being built by the Dixon Manufacturing Company, of Scranton, Pa.

It is operated on the pneumatic system, which is a new departure in modern warfare, combining accuracy and safety in throwing heavy charges of dynamite, nitro-gelatin and gun cotton in such a manner that neither armor nor masts are a protection against its projectiles.

Many attempts have been made to fire small charges of dynamite and gun cotton in powder guns, but frequent explosions have occurred and disaster has followed in consequence. During ten years of experiments in throwing from fifty to five hundred pound charges of high explosives not a single accident has occurred where compressed air was used to propel the projectile.

Unlike most of the long-range guns in use in our navy and for coast defense, the new weapon is smooth bore its entire length, the rotation of the projectile being given by means of spiral vanes attached to its rear. These vanes somewhat resemble the screw propeller of a ship, differing only in the number and pitch of the blades. The barrel is made in three sections, flanged together and supported upon a steel truss. The marvellous simplicity of the gun makes it easy to handle and the total absence of powder in its discharge obviates the necessity for spongers, cleaners and gun handlers.

The breech block is much lighter than those in use in powder guns, and but two motions are required to open it. The projectile, loaded to suit the conditions, is wheeled up to the breech on a elevator track which surrounds the gun, and slipped by electricity. Two more motions close the breech block, and the simple pressure of a lever opens a valve, releases 250,000 pounds of compressed air, and with a sound similar to that made by a cork escaping from a large champagne bottle,



THE THIRD SHOT.
(From instantaneous photograph.)

the projectile takes flight and whirls away. This gun is constructed with a view to economizing its pneumatic power. When the discharging lever is pulled, the large valve at the breech opens automatically and remains open a sufficient length of time to allow a certain fixed quantity of air to escape into the barrel, when the valve closes before the projectile leaves the muzzle, cutting off the escape of air, thus retaining in the reservoir all that is not required to propel the projectile. All of these valves are under perfect control of a single gunner, and the range can be controlled without changing the elevation of the gun, simply by turning the graduating wheel. This enables him to discharge projectiles at short range and still maintain a high firing angle with all its advantages. The atmospheric pressure can be so controlled that exactly the same propelling power can be given each projectile, which insures remarkable accuracy as soon as the range is found.

Two types of projectiles are used in this tremendous gun. One is termed a "full calibre," and fits the gun closely, the others are sub-calibre, and are considerably smaller than the barrel, being held in place by means of shoes and runners fifteen inches in diameter. This enables the gunner to use all sizes of projectiles and accommodate the gun to any size ammunition.

The full calibre projectile is about twelve feet in length, and has a capacity of 500 pounds of high explosive. The point is made of bronze, and the base tapers off to allow the displaced air to close in a smooth curve in the wake of the projectile. The exploding charge is divided into two parts by means of a diaphragm across the interior of the projectile about its middle.

This is done so that when the charge sets back at the instant of discharge, it causes less shock to the explosive and lessens the danger of its exploding. The shell weighs 850 pounds, and the charge 500, and has a range of 2,700 yards when fired at an elevation of 35 degrees. With 200 pounds of nitro-gelatin it has a range of 4,000 yards, and with 100 pounds of nitro-gelatin it will cover 6,000 yards.

Any one of these projectiles dropping on

(From the Official Drawings of the United States Government.)

THIS NEW GIANT DYNAMITE GUN, WITH A FIFTEEN INCH BORE, WILL BE MOUNTED ON FISHER'S ISLAND, AND WILL COMMAND THE ENTRANCE TO NEW YORK HARBOR—RANGE 6,000 YARDS.

or near a battleship will totally destroy it. A 500 pound charge exploding among a squadron would batter and seriously disable every ship within 200 yards.

The first practical test of the destructive power of nitro-gelatin fired from a pneu-

matic gun was made some years ago in New York harbor. An eight-inch gun was used, and charges of fifty-five pounds were thrown. The target was the old wooden schooner "Silliman," ninety feet in length, fixed at a range of 1,804 yards from the

gun. She was anchored bow on, so as to make the target as small as possible.

The first shot missed, the second knocked off the main mast and injured the stern deck, the third exploded directly underneath the vessel and shattered her to pieces. The illustrations accompanying this text show what was left of her for future practice.

Subsequently various charges were fired at bulkheads and other specially prepared targets, with the result that remarkable accuracy and destructive power was revealed to the builders and naval men generally.

This new dynamite gun is mounted on a solid base, and no allowance is made for recoil, as it amounts to little when compared to powder guns of the same calibre. Yet the enormous pressure of the atmosphere will be appreciated when it is understood that it has sufficient volume to start a railroad train, and if the same force were discharged on the side of the largest building in New York it would topple and fall to pieces.

These guns can be mounted on board ships and do deadly work. A single 500-pound charge of nitro-gelatin would wreck any fort in the world and destroy a whole line of fortifications.

Some startling figures are given here to show the penetration of the shells and their wonderful accuracy. During one trial eight successive shots were thrown into a horizontal rectangle 54 yards wide by 7 yards long at a distance of 3,000 yards. All of these shots would have struck in the flagship New York at that range, and any one of them would have destroyed her. An interesting experiment was made to show the penetration of eight-inch and ten-inch projectiles fired as sub-calibre. The range was fixed at 600 yards, and the ten-inch shell penetrated an earth butt to the depth of 45 feet, while the eight-inch went 47 feet to pieces.

The dynamite guns now commanding the position at Sandy Hook, which throw only two hundred pound charges, cover the main channel for a distance of about 9,000 yards and the swash channel for a distance of 4,200 yards. They would have under their fire with these charges a vessel running the channel at the rate of twenty miles an hour for a period of sixteen minutes, during which time each gun would discharge ten projectiles and would be able to reach a vessel running the swash channel at the same rate for a period of seven and a

quarter minutes and fire at her five projectiles.

With the new gun, the one now being built for Fisher Island, this could be doubled in speed and destruction, which means considerable in the matter of coast defence.

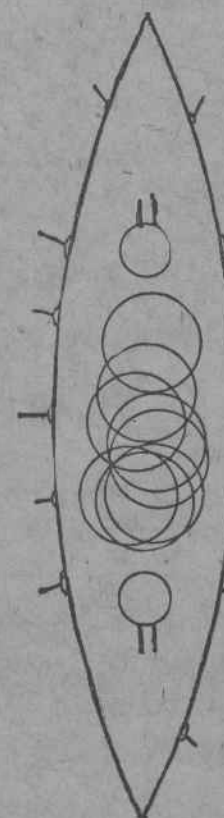
The explosive used in these guns is the most powerful known to gunmakers and is manufactured by the Giant Powder Company, of San Francisco. Its composition is as follows:

Eighty-seven per cent nitro-glycerine.
Seven per cent gun-cotton.
Four per cent camphor.
Two per cent carbonate of magnesia.
The explosion of one hundred pounds of nitro-gelatin on impact with the water threw up a column 300 feet, which will just about reach the base of the tower in the Syndicate Building on Park row.
The explosion of 500 pounds of nitro-gelatin threw up a volume of water 400 feet high, which is higher than any structure on Manhattan Island. Projectiles heavily charged were thrown against rock deposits along the coast and tons of earth and stone were shaken into the sea as though an earthquake had spent its power against them.

These pneumatic guns, mounted on ships, could work great havoc in harbors. One hundred pounds of nitro-gelatin exploded under water will destroy torpedo cases and blow up torpedoes existing anywhere within a radius of fifty feet. The ship, upon arriving off a harbor entrance known to be well mined and studded with explosives, could proceed to drop shells at a regular distance of 100 feet apart in longitudinal and lateral directions, and clear a channel for herself 300 feet wide at the rate of a mile an hour, advancing into the passage as fast as she renders it safe to do so, blasting herself to a position from which her shells could be thrown into the city or directly into the fortifications.

In time America's entire seaboard will be protected with these monster guardians.

COMPARATIVE SIZE OF A MAN AND THE DYNAMITE PROJECTILE.



HOW EIGHT SHOTS FROM THE DYNAMITE GUN STRUCK A TARGET THE SIZE OF THE FLAGSHIP "NEW YORK" AT A DISTANCE OF 3,640 YARDS.

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Madame Pote's Advice to Women

On "How to Be Beautiful."

See Photographic Supplement.

ALTHOUGH the American girl is nearly an ideal young person, yet even those who love her best must admit that she does not stand correctly, nor walk with dignified grace.

She may be as stylish as a fashion plate and as beautiful as a wood nymph, but when it comes to correct posture and grace of motion, here surely there is need of improvement.

Madame Pote, the health culture authority, in her studio at Carnegie Hall is just now teaching a class of young women how to stand and walk correctly. Here is what she tells her pupils:

"To stand correctly, the military pose is the first position to be attained. Stand erect, put heels together, with toes at an angle of fifteen degrees. Have knees to-

"After muscles tense at their back, hips on a line with the shoulders, spine curved outward slightly at the waist line, shoulders lowered, shoulder blades flattened, chest raised and rounded forward as far as possible, head thrown backward, chin drawn slightly in and arms straight at sides, with palms of hands touching sides of body; let the weight be borne equally on the balls of the feet. This pose is the fundamental position for correct standing. It is taught to gain precision."

Madame Pote refers to the military position as standing in oneness. In her instructions she follows it by directions for standing in unity, which means standing correctly and gracefully.

"To stand in unity, place the weight entirely on one foot, incline the torso slightly toward the free leg, and the head slightly toward the strong leg, so that a line from the throat would fall parallel with the instep. This will give a graceful standing position."

To learn to walk correctly Madame Pote suggests the following preliminary exercise: "Take a step forward and slightly raise the free foot behind. Have the heel of this foot turned inward and toes outward. But once on strong foot while counting two, and then repeat the action with the opposite foot. This exercise teaches perfect poise

on one foot and is essential in learning to walk gracefully."

"Here is the correct walk, of which feminine America is much in need: Let the chest lead in walking. Carry the chest and foot forward simultaneously, point foot downward at each step and poise body completely on the ball of the foot. The heel and the ball of the foot must touch weight of the body must be borne completely over the ball of the foot, so that a line from the chest would drop parallel with the instep. With each step, as the foot is carried forward, be careful to see that the knee is kept straight. Walk from the hips. Also, as the foot is put forward, raise the muscles of the instep.

"By so doing, the muscles will be strengthened, and in this way the height of the instep be increased."

On page seven, of the photographic supplement of to-day's paper, exercises are shown for developing the bust, which were posed specially for the Journal under the direction of Madame Pote. These exercises expand and increase the muscles of the chest and bust, and should be practised fifty times, twice a day.

"Cold water," says Madame Pote, "is another excellent remedy for developing the bust. With the hand slap the cold water over the bust every morning. It will bring the blood to the surface and consequently nourish the tissue, thereby developing the bust."

Here is what Madame Pote has to say to the woman who is burdened with abnormally large hips:

"To reduce large hips I recommend two exercises which must be practised systematically night and morning. For the first exercise, stand upon one foot and incline the body, relaxed in the opposite direction. This movement stretches the muscles from just above the hips to the ankles, and by exercising these muscles, they are strengthened and the adipose tissue reduced.

"The second exercise, with the hands raised to the forehead, is but a stronger movement than the first for producing the same results."



What One Shot from the Big Dynamite Gun Did to the Schooner Silliman in New York Harbor.
(From instantaneous photograph.)

Watermelons His Daily Diet.

HERE'S the only man in the world who lives almost exclusively on a diet of watermelons. He has just gone to Florida, so as to be near the base of supplies. His name is Robert Frazier, and he is a hopeless invalid. He is the son of A. C. Frazier, a wealthy farmer, living near Lincoln, Neb. Speaking to a reporter about himself, he said:

"While on my father's farm in the Summer of 1907 I was overcome with dizziness. I fell in a faint to the ground, and was unconscious for several hours. I was convalescent in a day or two, and thoughtlessly I went out in the heat again. The temperature of 110 degrees. After a mile walk I was stricken again and lay in the corn field for nearly two hours before being discovered.

"For a week I hovered between life and death. Then I got better, but a relapse set in and I became totally helpless. In two months my right side was entirely paralyzed, and it was believed I would surely die. The paralysis extended to both feet, and I believe it was my prayers and those of my dear mother that saved me from death. The doctors ordered me to discontinue eating meat and vegetables. Gradually I became utterly without an appetite and would shun food for days.

"My weight was decreasing at an alarming rate, and the physicians seemed powerless to help me. We had a fine watermelon patch on our farm, and it was suggested by the doctor that I try melons as a last resort. I did, and I began to gain flesh again. Then I was permitted to suck the juices from tender meats, and was also treated with emulsions. But these three ingredients, in addition to a little milk, constitute my meals and my remedies.

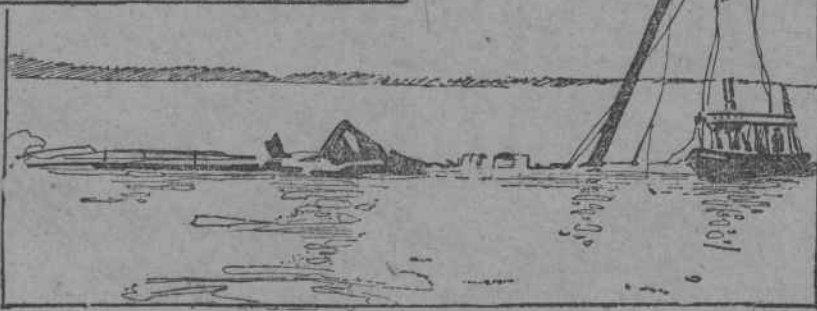
"I ate four watermelons a day for three months and stopped only when the season ended. Then I dropped weight and was fast turning to a skeleton, when it was decided to send me down to my uncle's plantation. It is some distance below the frost line and watermelons are grown there all the year round.

"The medical properties of the watermelon have surely proved wonderful in my case, and besides I love the melons like a Southern dandy."

A Prayer by Robert Louis Stevenson.

In a little book, "Great Souls at Prayer," recently issued in London, is the following prayer by the late Robert Louis Stevenson:

"We beseech Thee, Lord, to behold us with favor, folk of many families and nations gathered together in the peace of this roof, weak men and women subsisting under the covert of Thy patience. Be patient still; suffer us yet a while longer—with our broken purposes of good, with our idle endeavors against evil—suffer us a while longer to endure, and (if it may be) help us to do better. Bless to us our extraordinary mercies; if the day come when these must be taken, brace us to play the man under affliction. Be with our friends, be with ourselves. Go with each of us to rest; if any awake, temper to them the dark hours of watching; and when the day returns, return to us, our sun and comforter, and call us up with morning faces and with morning hearts eager to labor, eager to be happy, if happiness shall be our portion, and if the day be marked for sorrow, strong to endure it. Amen."



AFTER THE SHOT.
(From Photograph.)

Man Makes Black Horses White.

Here's a man who can color your horse to suit, and do it also a while you wait. He can literally make black white—in horses. He is George P. Richings, a professional horse painter, who says that there are great possibilities in his method of changing a horse's color. How he discovered the process, he describes as follows:

"I was treading a horse for a sore, and found the lotion had run into the hair and quickly changed his color. I started experiments and have continued them ever since. I frequently bought old crowsbats for \$3 or \$10 to experiment on their hides, and finally succeeded in getting the required results.

"I can make a chestnut-colored horse in twenty-four hours, no matter what the color of the animal brought to me. To make a black or brown horse requires from six to ten days."

"Have you ever tried to make a white horse out of a black one?"

"Oh, yes, frequently; but it is an experiment attended with danger to the horse. The lotions have a tendency to weaken the skin and are applied with danger to the more tender portions of the horse, more especially about the tendons."

Must Pay \$600 for a Bride.

The squaw man in the Indian Territory hereafter will not be able to marry his Indian bride without paying high for the privilege. The Chickasaw Legislature out there has passed a law whose object is to put a stop to the practice of white men marrying Indian women.

Usually the squaw man is a pretty poor lot. He takes his Indian bride knowing that he has a snug little bit of property as her share in the tribal lands. He is a loafer and an idler. The Indian lawmakers have now fixed up a law to tax every white man \$600 when he marries an Indian woman.

At the last tribal election the full-bloods, for the first time in twenty years, got in control of the Council. Since then they have made life a burden for the half-breeds and squaw men. Many laws have been passed detrimental to their interests, but the most effective action of all was taken when the price of a marriage license was raised from \$50 to \$600. But a Chickasaw girl is a bargain at \$300, for she has tribal property worth \$5,000.

Drunkenness Cured by Hypnotism.

Hypnotism is now being used in the treatment for the cure of alcoholism. Dr. Rybakow, a German physician, who is a specialist in this line and who has tried hypnotism on many of his patients, declares that alcoholics are very susceptible to hypnotism and subject themselves to the hypnotic influence much more readily than many other patients. The favorable effect of the treatment shows itself in the improvement of the subjective symptoms, the disappearance of the depression, of the apathy, and, finally, in the complete loss of the thirst for alcohol. Sometimes one sitting suffices not only to overcome the desire for the habitual poison, but also to break off an acute attack.

By repeating the sittings one may at times delay the patient's craving; the intervals, however, vary, depending entirely upon individual characteristics. Complete cure by hypnotism, according to the experience of Dr. Rybakow, is seldom obtained; relapses also are proportionally frequent. However, other physicians report instances of complete cure by hypnotism. The duration of the treatment depends especially upon the degree of degeneration; the milder the degeneration the more positive and lasting the cure.